

**AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) An arrangement for demodulation and modulation error measurement of a digitally modulated receive signal with a receive filter, and a following demodulator for error compensation and for determining ideal symbol samples,

wherein measuring signals are output from the demodulator,

wherein a first measuring signal is filtered in a reference filter and a second measuring signal is filtered using a weighting filtered function, the first measuring signal and the second measuring signal are then evaluated in a following evaluation circuit, ~~and~~

wherein the second measuring signal of the demodulators is filtered in a measuring filter and the weighting filter function is formed by cascaded functions of the receive filter and the measuring filter, with the demodulator directly between the receive and measuring filters, and

wherein the weighting filtering function is determined by the convolution operation relationship: weighting filtering = receive filter \* measuring filter such that the first measuring signal is directly passed from the demodulator to the measuring filter without having been delayed in a memory prior to being input to the demodulator.

2. (Canceled).

3. (Previously Presented) The arrangement according to Claim 1, wherein the receive filter is designed according to requirements of the demodulator for supplied signal characteristics.

4. (Previously Presented) The arrangement according to Claim 3, wherein the receive filter is designed so that inter-symbol-interference-free samples are fed to the demodulator.

5. (Currently Amended) An arrangement for demodulation and modulation error measurement of a digitally modulated signal, the arrangement comprising:

a receive filter for receiving the digitally modulated signal and for filtering the digitally modulated signal;

a demodulator for receiving the filtered digitally modulated signal from the receive filter, for performing error correction to the received filtered digitally modulated signal and outputting a first measuring signal, and for determining ideal symbol samples from the first measuring signal and outputting a second measuring signal;

a reference filter for receiving the second measuring signal from the demodulator and for filtering the second measuring signal;

a measuring filter for receiving the first measuring signal from the demodulator and for weighting filtering the first measuring signal of the demodulator; and

an evaluation circuit for evaluating the filtered second measuring signal from the reference filter and the weighting filtered first measuring signal from the measuring filter,

wherein the weighting filter function for the first measuring signal is formed by cascaded functions of the receive filter and the measuring filter, with the demodulator directly between the receive and measuring filters, and

wherein the weighting filtering function is determined by the convolution operation relationship: weighting filtering = receive filter \* measuring filter such that the first measuring

signal is directly passed from the demodulator to the measuring filter without having been delayed in a memory prior to being input to the demodulator.

6. (Canceled).

7. (Previously Presented) The arrangement according to claim 5, wherein the receive filter is designed according to requirements of the demodulator for supplied signal characteristics.

8. (Previously Presented) The arrangement according to claim 7, wherein the receive filter is designed so that inter-symbol-interference-free samples are fed to the demodulator.

9. (Previously Presented) The arrangement according to claim 5, wherein the measuring filter receives the first measuring signal directly from the demodulator and the reference filter receives the second measuring signal directly from the demodulator.

10. (Currently Amended) A method for demodulation and modulation error measurement of a digitally modulated signal, the method comprising:

receiving the digitally modulated signal;

filtering the digitally modulated signal by a receive filter;

providing the filtered digitally modulated signal to a demodulator;

performing, by the demodulator, error correction to the filtered digitally modulated signal and outputting a first measuring signal and a second measuring signal;

filtering the first measuring signal in a reference signal by a reference filter, which receives the first measuring signal from the demodulator;

weighting the second measuring signal output from the demodulator by a measuring filter; and

evaluating the filtered first measuring signal from the reference filter and the weighting filtered second measuring signal from the measuring filter by an evaluation circuit,

wherein the weighting filter function for the second measuring signal is formed by cascaded functions of the receive filter and the measuring filter, with the demodulator directly between the receive and measuring filters, and

wherein the weighting filtering function is determined by the convolution operation relationship: weighting filtering = receive filter \* measuring filter such that the first measuring signal is directly passed from the demodulator to the measuring filter without having been delayed in a memory prior to being input to the demodulator.

11. (New) The arrangement according to claim 1, wherein the digitally modulated receive signal input to the receive filter is not split in two signals.

12. (New) The arrangement according to claim 5, wherein the digitally modulated signal input to the receive filter is not split in two signals.

13. (New) The method according to claim 10, wherein the digitally modulated signal input to the receive filter is not split in two signals.